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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

JUN 13 1997

Federal Communications Commission
Office of Secretary

In the Matter of	)	
	)	
Advanced Television Systems	)	MM Docket No. 87-268
and Their Impact Upon the	)	
Existing Television Broadcast	)	
Service	)	

To: The Commission

PETITION FOR PARTIAL RECONSIDERATION OF WTNH BROADCASTING, INC., K-W TV, INC., POST-NEWSWEEK STATIONS, CONNECTICUT, INC. AND TRIBUNE BROADCASTING COMPANY

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APPENDICES

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JOINT PETITION FOR PARTIAL RECONSIDERATION OF WTNH BROADCASTING, INC., K-W TV, INC., POST-NEWSWEEK STATIONS, CONNECTICUT, INC. AND TRIBUNE BROADCASTING COMPANY

WTNH Broadcasting, Inc. (licensee of WTNH-TV, New Haven, Connecticut) ("WTNH-TV"), K-W TV, Inc. (licensee of WBNE, New Haven, Connecticut) ("WBNE"), Post-Newsweek Stations, Connecticut, Inc. (licensee of WFSB, Hartford, Connecticut) ("WFSB") and Tribune Broadcasting Company (corporate parent of the licensee of WPIX, New York City, New York) ("WPIX") (at times collectively referred to as "Petitioners") urge the Commission to reconsider and modify its advanced digital television ("DTV") allotments and assignments for the Hartford-New Haven (CT) television market adopted in the Sixth Report and Order, MM Docket No. 87-268 ("Sixth R&O"). Petitioners submit that such modification is warranted to avoid unnecessary and destructive loss of free, off-air television service to hundreds of thousands of persons in that market and the adjacent New York market.

Petitioners appreciate the complexity of the task the Commission confronted in crafting the Table of Allotments/Assignments ("DTV Table").[1] And we understand that

[1] Appendix B to the Sixth R&O contains the proposed paired channel plan. See also, Rule 73.622(b).

compromises had to be made. Nevertheless, as was perhaps inevitable given the enormity of this task and the FCC's decision to adopt a core-band approach, there are a limited number of instances where the DTV Table creates significant but avoidable interference to NTSC service and assigns DTV channels that unnecessarily fail to replicate stations' existing NTSC Grade B coverage. As the MSTV Petition demonstrates,[2] the congested northeast corridor, including the New York and Hartford-New Haven television markets, is one of three areas encountering such problems.

In the instant Joint Petition, WPIX, WTNH-TV, WBNE and WFSB illustrate the extent of the problem in their coverage areas. Petitioners provide concrete evidence regarding the impact of the unduly tight packing of DTV channels in the northeast corridor on one New York market station and three adjacent-market Hartford-New Haven stations. Given the tight packing of channels in the metropolitan northeastern corridor, a "domino effect" apparently results from nearly every potential channel or facility change -- which Petitioners, and others filing petitions with the Commission today, conclude necessitates a regional approach to the problem.

I. THE DTV TABLE FOR THE HARTFORD-NEW HAVEN AREA RESULTS IN REDUCED MAXIMIZATION AND INCREASED INTERFERENCE.

The following chart reflects the NTSC channels on which Petitioners' stations operate and each station's assigned DTV channel:

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[2] See Petition for Clarification and Partial Reconsideration of the Fifth and Sixth Reports and Orders submitted by the Association for Maximum Service Television, Inc., Broadcasters Caucus and Other Broadcasters ("MSTV Petition").

Station	NTSC Channel	DTV Channel	DTV Power
WFSB (Hartford)	Ch. 3	Ch. 11	39.5 kW
WTNH-TV (New Haven)	Ch. 8	Ch. 10	8.2 kW
WBNE (New Haven)	Ch. 59	Ch. 6	1.0 kW
WPIX (New York)	Ch. 11	Ch. 33	111.8 kW

Petitioners have concluded, as detailed below, that WPIX (New York) NTSC Channel 11 and WTNH-TV (New Haven) NTSC Channel 8 will receive excessive interference from the proximate DTV stations assigned to the region and that certain DTV channels allotted to Hartford and New Haven will receive excessive interference from NTSC and DTV channels in the region.

A. The NTSC Stations In The Region Will Receive Excessive Interference From The Proximate DTV Stations Assigned To The Region.

1. WPIX (New York City) NTSC Channel 11 will receive unacceptable levels of interference from WFSB (Hartford) DTV Channel 11.

The Sixth R&O allots DTV Channel 11 to Hartford and specifically assigns it to WFSB. However, the reference coordinates for WFSB's DTV Channel 11 are only 155.5 kilometers from WPIX's NTSC Channel 11 transmitter.[3] This separation is much less than that required for new co-channel stations (244.6 km).[4] Not surprising, this co-channel short-spacing assignment leads to unacceptable levels of interference in important portions of WPIX's existing and future service area.

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[3] See Appendix A, Technical Statement of John Lundin of du Treil, Lundin & Rackley, Inc. ("Lundin Analysis") at 3.

[4] See 76.623(d).

The Lundin Engineering Analysis demonstrates that WPIX NTSC Channel 11 will suffer DTV interference in an area of 6,589 square kilometers containing an estimated population of 1,732,000 persons if WFSB transmits on DTV Channel 11.[5] The interference will disenfranchise viewers in Suffolk, Westchester, Putnam and Fairfield Counties in WPIX's television market.[6] Reducing WPIX's service area to this extent and displacing this number of viewers certainly is not in the interest of WPIX or the public and runs counter to the Commission's primary goal of non-disruption of existing NTSC service.

2. WTNH-TV (New Haven) NTSC Channel 8 will receive unacceptable levels of interference from WMBC (Newton, NJ) DTV Channel 8.

WTNH-TV (New Haven) NTSC Channel 8 faces interference from WMBC (Newton, New Jersey) DTV Channel 8, another co-channel DTV assignment in the region. These co-channels are spaced only 145 kilometers apart, far less than the required 244.6 kilometer spacing for new co-channel stations.[7] And as the engineering analysis demonstrates, the separation between the two stations creates substantial interference. Specifically, WTNH-TV NTSC Channel 8 will suffer interference over an area of 3,120 square kilometers on densely populated Long Island on account of the Channel 8 DTV

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[5] Lundin Analysis at 3.

[6] Id. at 4; Appendix B, Technical Statement of Joe Stielper of Moffet, Larson & Johnson, Inc. ("Stielper Analysis") at Figures 1 and 2. WPIX has significant over-the-air viewership in each of these counties. In addition, as noted in subsection B.3 below, interference from WPIX NTSC Channel 11 to WFSB DTV Channel 11 is also substantial, calculated at 2,904 square kilometers. See Lundin Analysis at 6.

[7] See also, MSTV Petition at Section II.C.3(b) (highlighting the unacceptable levels of interference that result from co-channel DTV and NTSC separations of less than 155 km.).

transmissions of WMBC (Newton, New Jersey).[8] This level of interference will disenfranchise 1,674,000 of its 4,690,000 persons within the WTNH-TV Grade B contour.[9]

B. The DTV Channels Allotted To Hartford And New Haven Will Receive Interference From NTSC And DTV Channels In The Region.

1. WTNH-TV (New Haven) DTV Channel 10 will receive unacceptable levels of interference from WJAR (Providence, RI) NTSC Channel 10.

The Sixth R&O allots DTV Channel 10 to New Haven and assigns it to WTNH-TV. This DTV station will experience interference from short-spaced NTSC signals in the area. Specifically, the distance between co-channels WTNH-TV (New Haven) DTV Channel 10 and WJAR (Providence) NTSC Channel 10 is only 147.9 kilometers. The Reynolds Analysis demonstrates the degree to which this short separation causes unacceptable interference to WTNH-TV (New Haven) DTV Channel 10. As indicated, WJAR's NTSC operations will cause interference over 3,030 square kilometers of WTNH-TV's DTV noise limited contour, displacing 385,000 of the 4,690,000 persons in WTNH-TV's NTSC coverage area.[10] This interference will occur in the eastern part of the New Haven-Hartford DMA -- in Tolland County, Windham County and New London County.[11] In fact, WTNH-TV will lose nearly all of its viewers in Windham County.[12]

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[8] See Technical Statement of Jeff Reynolds of du Treil, Lundin & Rackley, Inc. ("Reynolds Analysis") at 2-3.

[9] Reynolds Analysis at 3; Sixth R&O, Appendix B.

[10] Reynolds Analysis at 3.

[11] Id.

[12] Id. Although WTNH-TV will gain some areas outside the Hartford-New Haven DMA, this gain does not compensate for losses within the DMA. As the Commission is well aware, replication, to be meaningful, must fall within the station's television market.

2. WBNE (New Haven) DTV Channel 6 will receive unacceptable levels of interference from WLNE-TV (New Bedford, MA) NTSC Channel 6 and WRGB (Schenectady, NY) NTSC Channel 6.

As highlighted in the Sixth R&O, broadcasting on DTV Channel 6 WBNE (New Haven) can only achieve an 88.1% replication of its existing NTSC service area. This level of replication will prevent WBNE from reaching thousands of its existing viewers.

The Reynolds Analysis demonstrates that WBNE DTV Channel 6 will receive significant interference from the WLNE-TV (New Bedford, MA) NTSC Channel 6 and WRGB (Schenectady, NY) NTSC Channel 6.[13] This interference is due to the limited separation between WBNE-TV and these two co-channel stations. Indeed, WLNE-TV's NTSC operations, spaced 148.34 kilometers away from WBNE, will cause interference over 3,650 square kilometers of WBNE's DTV noise limited contour containing an estimated population of 422,000.[14] Similarly, WRGB NTSC operations, spaced 160.16 kilometers away from WBNE, will cause interference over 2,050 square kilometers of WBNE's DTV noise limited contour containing an estimated population of 293,000.[15] And, like WTNH-TV, WBNE will lose viewers within three DMA counties -- Tolland County, Windham County and New London County.[16]

3. WFSB (Hartford) DTV Channel 11 will receive unacceptable levels of interference from WPIX (New York) NTSC Channel 11.

As reflected in the Lundin Analysis, WPIX (New York) NTSC Channel 11 will cause interference over 2,904 square kilometers of the WFSB (Hartford) DTV Channel

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[13] See Reynolds Analysis at 5.

[14] Id.

[15] Id.

[16] Id.

11 noise limited coverage contour containing an estimated population of 776,000 persons.[17] Taking into account use of indoor antennas by viewers receiving WFSB's signal, however, the interference to WFSB DTV Channel 11 will be much greater. The 2,904 square kilometers level of interference assumes the use of outdoor (directional) receiving antennas which discriminate against (i.e., ignore) interference from any direction other than the exact direction of the transmitting antenna.[18] In this congested urban area, however, reception on indoor antennas is the norm. And, as the Stielper Analysis indicates, the predicted interference to WFSB increases where viewers are expected to use indoor antennas. Indeed, the Stielper Analysis demonstrates that, assuming the use of indoor antennas, interference from WPIX NTSC Channel 11 to WFSB DTV Channel 11 will extend almost to WFSB's NTSC Grade A contour.[19]

4. The separation between the transmitters of WFSB (Hartford) DTV Channel 10 and WTNH-TV (New Haven) DTV Channel 11 is problematic.

The Sixth R&O assigns DTV Channel 11 to WFSB (Hartford) while also assigning DTV Channel 10 to WTNH-TV (New Haven) which is located 40.94 square kilometers from the WFSB site.[20] The separation is problematic because the stations, which are licensed to different cities in the same television market, cannot simply be collocated. If WTNH-TV DTV Channel 10 were to use WFSB's site, its signal would be obstructed by

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[17] Lundin Analysis at 6. The two stations are separated by only 155.5 kilometers (96.6 miles). See Stielper Analysis at 2.

[18] Stielper Analysis at 4.

[19] Id.

[20] Sixth R&O, Appendix B; Stielper Analysis at 5.

terrain.[21] Conversely, locating WFSB DTV Channel 11 at the WTNH-TV site would exacerbate the already crippling interference problem with WPIX (New York) NTSC Channel 11.[22]

II. A REGIONAL SOLUTION IS NECESSARY AND APPROPRIATE.

Petitioners' consulting engineers have examined various potential options but, largely because of the daisy chain effects of proposed channel changes in the congested northeast corridor and the lack of availability of the FCC's computer software and OET Bulletin No. 69, they have been unable to find solutions for the above problems.[23] Petitioners' studies of alternatives to correct the WFSB (Hartford) DTV Channel 11-WPIX (New York) NTSC Channel 11 mutual interference situation illustrates the difficulty of finding isolated fixes in this region.

An engineering consultant with Moffet, Larson & Johnson hypothesized a "channel swap" for WFSB (Hartford) with three Springfield stations (DTV Channels 33, 55 and 58). None would work.[24] An engineering consultant with du Treil, Lundin & Rackley ran interference analyses for WFSB (Hartford) DTV transmissions on the alternatives of **(a)** DTV Channel 31; **(b)** DTV Channel 33 (assuming a channel swap with WWLP in Springfield, Mass); **(c)** DTV Channel 50 and **(d)** DTV Channel 63.[25] As noted in the

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[21] Stielper Analysis at 5.

[22] Id. Moreover, although a joint tower might address the spacing problem, it is unrealistic to anticipate that the parties could find an alternative acceptable tower site given the difficulty of obtaining tower sites in the Hartford-New Haven area. See K-W TV, Inc., 70 RR 2d 1655 (1992).

[23] See Lundin Analysis at 12; Stielper Analysis at 3.

[24] Stielper Analysis at 3; see also Lundin Analysis at 7.

[25] Lundin Analysis at 7-13. Channels 31 and 50 are hypothesized as new allotments for the area, rather than channel swaps.

Lundin Analysis, each prospective assignment would run into short spacing and/or other interference problems.

After examining various possible isolated "fixes" to the problems identified herein, Petitioners' engineering consultants have each reached the same conclusion as MSTV -- that a regional solution is necessary and appropriate.[26] Petitioners, who have been signatories to the MSTV/Broadcasters/Joint Broadcasters filings throughout the Commission's DTV rulemaking, continue to endorse the basic principles used by MSTV. We are confident that MSTV, working with members of the industry, will develop an acceptable solution to the problems identified in this Petition. Petitioners will cooperate expeditiously in that effort and will, either together or separately, file comments on MSTV's approach.

CONCLUSION

The Sixth R&O recognizes that a cornerstone principle for the successful transition into the digital era will be the ability of stations to replicate existing coverage without causing avoidable new interference to existing NTSC service areas, thereby preserving viewer access to free over-the-air television. As illustrated in this Petition, the DTV Table for the Hartford-New Haven region causes interference and replication problems that do not come with identifiable isolated solutions. For this reason, Petitioners respectfully urge the Commission to reconsider the DTV Table for the northeast corridor, and,

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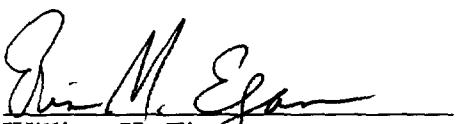
[26] See Lundin Analysis at 12; Stielper Analysis at 5; Reynolds Analysis at 6; MSTV Petition at Section I.A.2.

specifically, they request that the Commission allow MSTV and the industry the opportunity to develop alternatives for the region that resolve the problems identified herein.

Respectfully submitted,

POST-NEWSWEEK STATIONS, CONNECTICUT, INC.



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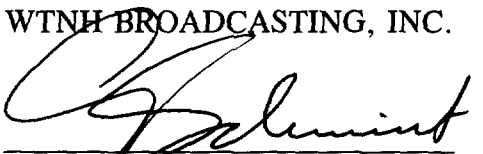

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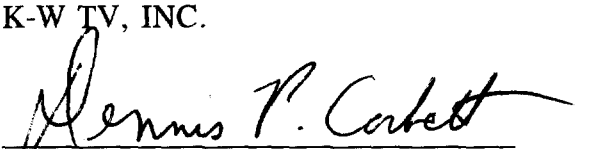

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June 13, 1997

APPENDIX A

TECHNICAL STATEMENT OF
JOHN A. LUNDIN OF
DU TREIL, LUNDIN & RACKLEY, INC.

APPENDIX B

TECHNICAL STATEMENT OF
JOE STIELPER OF
MOFFET, LARSON & JOHNSON, INC.

TECHNICAL STATEMENT
SUPPORTING A PETITION FOR RECONSIDERATION
FROM TRIBUNE BROADCASTING COMPANY

This Technical Statement supports a petition for reconsideration from Tribune Broadcasting Company, owner of television (TV) station WPIX on channel 11 at New York, New York. The petition for reconsideration concerns the Federal Communications Commission (FCC) Sixth Report and Order (6th R&O) in Mass Media (MM) Docket No. 87-268. This proceeding concerns advanced television systems and their impact upon the existing television broadcast service. In the 6th R&O, the FCC allotted digital television (DTV) channels to eligible stations throughout the country. The WPIX petition for reconsideration requests the FCC to revise the DTV allotments in the northeast region (New York, Connecticut, Rhode Island, etc.) to reduce the substantial interference which would result from the current allotment scheme.

According to the FCC's TV database, station WPIX presently operates on analog[1] channel 11 with a non-directional antenna system. The visual effective radiated power (ERP) is 58.9 kilowatts (kW). The antenna height above average terrain (HAAT) is 506 meters (1660 feet).

The FCC allotted DTV channel 33 to WPIX. The DTV transmitting facilities authorized are an ERP of 111.8 kW at an antenna HAAT of 506 meters.

[1] Also referred to as NTSC channels for the National Television Systems Committee.

A DTV interference analysis computer program available through TA Services of the National Telecommunications Information Agency (NTIA) in Boulder, Colorado has been employed. It has been used to determine the calculated areas of service and interference for analog and DTV operations. The NTIA program uses the Longley-Rice propagation model, and general methodology employed by the FCC during the DTV allocation process.

Figure 1 is a map developed by the NTIA computer program. It shows the calculated Grade B service area for the WPIX analog operation on channel 11. The map shows regions of calculated interference from other analog (NTSC) and DTV operations. Areas where the WPIX signal is below Grade B due to terrain effects are indicated. The clear or unshaded area indicates where WPIX provides interference-free Grade B service. The following stations are calculated to cause interference within the WPIX Grade B service area.

Station	Channel	Interference **Received** Area
WFSB, Hartford, CT	DTV-11	6,589 sq km
WHYY-TV, Wilmington, DE	NTSC-12	1,155
WBAL-TV, Baltimore, MD	NTSC-11	2,503
WENH-TV, Durham, NH	NTSC-11	220
WTEN, Albany, NY	NTSC-10	40
WCAU, Philadelphia, PA	NTSC-10	2,204
WBRE-TV, Wilkes-Barre, PA	DTV-11	206

The above areas are individual amounts and do not consider whether interference occurs to portions of that area from other analog (NTSC) or DTV assignments. The HDTV interference figures noted on Figure 1 reflect only the incremental or new interference caused by a DTV assignment (i.e., where existing NTSC interference does not occur).

A study for WPIX's present analog operation (channel 11) was conducted using the FCC's new separation standards. For adjacent channels, the FCC prohibits DTV allotments when the separation falls between a lower limit (11.3 km) and an upper limit (114.3 km). The following are the pertinent DTV allotments near WPIX.

Station	NTSC Ch.	DTV Ch.	Bearing	Actual Separation	FCC Minimum Requirement
WTNH, New Haven, CT	8	10	48 deg.	119.2 km	11.3-114.3 km
WFSB, Hartford, CT	3	11	40	155.5	244.6
WBRE-TV, Wilkes-Barre, PA	28	11	289	164.4	244.6
WTXX, Waterbury, CT	20	12	43	122.5	11.3-114.3

As demonstrated above, the FCC made 2 major co-channel short-spacings in its allotment table attached to the 6th R&O. The WFSB DTV allotment in particular, will cause substantial interference to WPIX's current analog service. It will cause interference to an estimated population of 1,732,000 people within an area of 6,589 square kilometers. It will cause new

interference to an estimated population of 1,332,000 people in an area of 4,960 square kilometers. This new interference to WPIX from WFSB's DTV operation includes portions of the following counties:

Fairfield County, CT
Suffolk County, NY
Westchester County, NY
Putnam County, NY

Figure 2 is a map developed by the NTIA DTV program for the FCC's proposed WPIX DTV operation on channel 33. The 41 dBu noise limited service area is shown as clear or unshaded. The following analog (NTSC) and DTV assignments are predicted to cause interference within the WPIX DTV noise limited contour.

Station	Channel	Interference **Received** Area
WWLP, Springfield, MA	DTV-33	134 sq km
WNJU, Linden, NJ	NTSC-47	9
WXTV, Paterson, NJ	NTSC-41	6
WFME-TV, West Milford, NJ	DTV-29	3
WNYE-TV, New York, NY	NTSC-25	9
WBIS-TV, New York, NY	NTSC-31	3
WITF-TV, Harrisburg, PA	NTSC-33	46

A separation study for DTV channel 33 at the WPIX site indicates one short-spacing. The separation to station WWLP(TV) at Springfield, Massachusetts (DTV channel 33, NTSC channel 22) is 187.7 kilometers. The FCC's new rules require a minimum separation of 196.3 kilometers between co-channel DTV stations in

Zone 1 (i.e., an 8.6 kilometer short-spacing). WPIX has no objection to the DTV channel the FCC has assigned to it for the DTV transition period.

Figure 3 is a map from the NTIA program for the WFSB analog operation on channel 3 at Hartford, Connecticut. The following stations are calculated to cause interference within the WFSB Grade B service area.

Station	Channel	Interference **Received** Area
WGBH-TV, Boston, MA	NTSC-2	1,583 sq km
WBZ-TV, Boston, MA	NTSC-4	536
WXXA-TV, Albany, NY	DTV-4	9
WCBS-TV, New York, NY	NTSC-2	1,136
WNBC, New York, NY	NTSC-4	403
WSTM-TV, Syracuse, NY	NTSC-3	1,859
WKTV, Utica, NY	NTSC-2	25
KYW-TV, Philadelphia, PA	NTSC-3	4,476
WCAX-TV, Burlington, VT	NTSC-3	1,768

Figure 4 is a map from the NTIA computer program for the FCC's proposed WFSB DTV operation on channel 11. The following stations are predicted to cause interference within the WFSB noise limited contour.

Station	Channel	Interference **Received** Area
WTNH, New Haven, CT	DTV-10	9 sq km
WENH-TV, Durham, NH	NTSC-11	1,206
WPIX, New York, NY	NTSC-11	2,904
WJAR, Providence, RI	NTSC-10	137
WPRI-TV, Providence, RI	NTSC-12	103

In particular, the WFSB DTV operation on channel 11 will receive substantial interference from the existing analog operation of WPIX on channel 11 (an estimated population of 776,000 people within an area of 2,904 square kilometers.

The following is the calculated interference caused by WFSB's DTV operation on channel 11 to other analog (NTSC) and DTV operations.

Station	Channel	Interference **Caused** Area
WTNH, New Haven, CT	DTV-10	94 sq km
WTXX, Waterbury, CT	DTV-12	236
WENH-TV, Durham, NH	NTSC-11	2,572
WPIX, New York, NY	NTSC-11	6,589
WTEN, Albany, NY	NTSC-10	5
WBRE-TV, Wilkes-Barre, PA	DTV-11	132
WJAR, Providence, RI	NTSC-10	265

Because of the severe interference caused and received between the WPIX analog and WFSB DTV operations, studies have been undertaken in an attempt to find an alternative DTV

allotment for WFSB. A search of the entire TV band (channels 2 through 69) was conducted. Consideration was given to possibly "swapping" WFSB's DTV channel with another (more distant from WPIX) assignment. As expected, no DTV channel was found which was clear of allocation problems. A few of the channels with what seemed to be the least egregious separation problems were studied in more detail using the NTIA DTV computer program. A brief summary for each potential WFSB DTV channel studied is given below.

DTV Channel 31

Figure 5 is a map from the NTIA program for an assumed WFSB DTV operation on channel 31. The following stations are predicted to cause interference within the 41 dBu noise limited service area for the assumed WFSB channel 31 DTV operation.

Station	Channel	Interference **Received** Area
WVIT, New Britain, CT	NTSC-30	143 sq km
WTWS, New London, CT	DTV-34	19
WBZ-TV, Boston, MA	DTV-30	90
WFXT, Boston, MA	DTV-31	2,400
WUNI, Worcester, MA	NTSC-27	6
WBIS-TV, New York, NY	NTSC-31	2,976
WOLF-TV, Scranton, PA	DTV-31	3
WNNE-TV, Hartford, VT	NTSC-31	1,146

The following is the calculated interference caused by the assumed DTV operation of WFSB on channel 31 to other analog (NTSC) and DTV operations.

Station	Channel	Interference **Caused** Area
WEDH, Hartford, CT	DTV-32	241 sq km
WVIT, New Britain, CT	NTSC-30	606
WVIT, New Britain, CT	DTV-35	1
WTGI-TV, Wilmington, DE	DTV-31	10
WBZ-TV, Boston, MA	DTV-30	47
WFXT, Boston, MA	DTV-31	1,868
WUNI, Worcester, MA	NTSC-27	62
WBIS-TV, New York, NY	NTSC-31	2,345
WOLF-TV, Scranton, PA	DTV-31	831
WNNE-TV, Hartford, VT	NTSC-31	2,342

DTV Channel 33

Figure 6 is a map from the NTIA computer program for an assumed WFSB DTV operation on channel 33. In this case, it is assumed that station WFSB and WWLP (Springfield, MA) swap DTV channels. The following stations are predicted to cause interference within the 41 dBu noise limited service area for the assumed WFSB channel 33 DTV operation.

Station	Channel	Interference **Received** Area
WTWS, New London, CT	NTSC-26	502 sq km
WGGB-TV, Springfield, MA	NTSC-40	37
WYDN, Worcester, MA	NTSC-48	395
WNBU, Concord, NH	DTV-33	449
WPIX, New York, NY	DTV-33	3,187

It is noted that WPIX's DTV channel (33) is co-channel with this assumed DTV operation of WFSB.

The following is the calculated interference caused by the assumed DTV operation of WFSB on channel 33 to other analog (NTSC) and DTV operations.

Station	Channel	Interference **Caused** Area
WEDH, Hartford, CT	DTV-32	193 sq km
WVIT, New Britain, CT	NTSC-30	7
WTWS, New London, CT	NTSC-26	45
WGGB-TV, Springfield, MA	NTSC-40	143
WNBU, Concord, NH	DTV-33	1,097
WPIX, New York, NY	DTV-33	3,353
WFXV, Utica, NY	NTSC-33	74
WETK, Burlington, VT	NTSC-33	83

DTV Channel 50

Figure 7 is a map from the NTIA program for an assumed WFSB DTV operation on channel 50. The following stations are predicted to cause interference within the 41 dBu noise limited service area for the assumed WFSB DTV operation on channel 50.

Station	Channel	Interference **Received** Area
WHAI-TV, Bridgeport, CT	NTSC-43	340 sq km
WEDW, Bridgeport, CT	NTSC-49	730
WEDN, Norwich, CT	NTSC-53	97
WLNE-TV, New Bedford, MA	DTV-49	31
WGBY-TV, Springfield, MA	NTSC-57	108
WYDN, Worcester, MA	NTSC-48	263
WNDS, Derry, NH	NTSC-50	247
WNJN, Montclair, NJ	NTSC-50	2,915
WOCD, Amsterdam, NY	DTV-50	226
WJAR, Providence, RI	DTV-51	6

The following is the calculated interference caused by the assumed DTV operation of WFSB on channel 50 to the other analog (NTSC) and DTV operations.

Station	Channel	Interference **Caused** Area
WHAI-TV, Bridgeport, CT	NTSC-43	2 sq km
WEDW, Bridgeport, CT	NTSC-49	652
WEDW, Bridgeport, CT	DTV-52	5
WEDN, Norwich, CT	NTSC-53	415
WLNE-TV, New Bedford, MA	DTV-49	20
WGBY-TV, Springfield, MA	NTSC-57	132
WGBY-TV, Springfield, MA	DTV-58	29
WYDN, Worcester, MA	NTSC-48	296